

[54] VIDEO COMPUTATIONAL SHARED DRAWING SPACE

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[57] ABSTRACT

The present invention comprises a display unit (10) which displays a composite image (38); a stylus (24) which is used to "write" on the composite image (38); a way of detecting (20) the position of the stylus (24) over the composite image (38); a video camera (12) mounted a short distance away from the video display (11) and aimed at the composite image (38); a light (23) which provides uniform illumination to the composite image (38); a mechanism for preventing video feedback (26); and a computer (22). A special configuration of cables (16, 28, 30, 32, 34) is used to interconnect the display (10), the stylus (24), the position detector (20), the video camera (12) and the computer (22). Two or more workstations (11) can be electrically connected to each other via cables (34) or over a network (76). Many variations of this invention can be created by connecting other components into the computer network (76). Various combinations of video mixers (39) and video buses (78) can be utilized instead of directly connecting the video cameras (12) to the computers (22) with cables (16). Three dimensional effects can be created by employing a second video camera (112), adjacent to the first (12), in combination with a pair of shuttering spectacles (102). Images of additional objects (98) can be provided by extra cameras (70) electrically connected in several different ways to the network. To enhance communication between operators (25) separated by large distances, microphones (74), loudspeakers (72), auxiliary cameras (70) and auxiliary video displays (66) can be provided at each workstation (11). Large scale versions of this invention can be constructed. In large scale versions the video display unit (10) is replaced with a large screen (88) and a video projector (90).

16 Claims, 18 Drawing Sheets

